depends is not valid for the X-rays from a Coolidge tube under a potential of 60,000 volts or higher, and the use of this instrument should be confined to the measurement of X-rays of medium or low penetration such as those utilised in medical radiography or superficial radio-therapy.—L. and E. **Bloch**: The spark spectra of mercury, copper, zinc, and thallium in the extreme ultra-violet. The measurements were made with a prism spectrograph, and the wave-lengths given are based on Lyman's data obtained with a grating. New lines are given for all four metals.—C. **Raveau**: The determination of the number of independent components. The rule of M. Dubreuil; the action of water on a mixture of salts.—J. B. **Senderens**: The catalytic dehydration of fermentation amyl alcohol. Catalysis by aluminium silicate at 340° to 350° C. gives a mixture of three amylenes, and the proportion in which these are present depends on the length of time the catalyst has been in use. The first litre of amylenes collected contained 93 per cent. of amylene soluble in diluted sulphuric acid, the third litre only 75 per cent.—R. **Cornubert**: The spectrochemical study of the α-allyl- and α-allylmethyl-*cyclo*hexanones.—L. **Duparc** and G. **Favre**: The deposit of oolitic iron ore at Ain-Babouche (Algeria).—H. **Jumelle**: The katoka, a Madagascan tree with edible seeds. The tree is a new species of the genus Treculia, and is named *Treculia Perrieri*. It is abundant in the west of Madagascar and produces a good wood and edible seeds. The latter are consumed by the natives as food, and have been imported into France for the extraction of their oil.—H. **Bouygues**: The terminal meristem of the stem and its division into regions.—P. **Lesage**: Evaporometers and the motion of fluids through membranes.—A. **Damiens**: The bromine and chlorine existing normally in animal tissues. Bromine was found in all the organs examined, except in two or three cases where the quantities of material available were too small. The ratio of bromine to chlorine in the organs of any given animal is sensibly constant, and is of the order 0·001 to 0·002.—L. **Mercier**: Variation in the number of the fibres of the longitudinal vibrator muscles in *Chersodromia hirta*. Loss of the power of flight.—C. **Julin** and A. **Robert**: Organogenesis in the blastozoites of Perophora.—T. **Tommasina**: Remarks on the note by M. Louis Besson on the relation between the meteorological elements and the number of deaths by inflammatory diseases of the respiratory organs at Paris.

Books Received.

The Birds of the British Isles and their Eggs. By T. A. Coward. Second Series: Comprising Families Anatidæ to Tetraonidæ. Pp. vii+376+159 plates. (London and New York: F. Warne and Co., Ltd.) 12*s*. 6*d*. net.

Considérations sur l'Etre Vivant. By C. Janet. Première Partie. Pp. 80+1 planche. (Beauvais: A. Dumontier.)

The Annual of the British School at Athens. No. xxiii., Session 1918–19. Pp. xvi+260+xvi plates. (London: Macmillan and Co., Ltd.) 30*s*. net.

Anxiety Hysteria: Modern Views on some Neuroses. By Dr. C. H. L. Rixon and D. Matthew. Pp. xi+124. (London: H. K. Lewis and Co., Ltd.) 4*s*. 6*d*. net.

From the Unconscious to the Conscious. By G. Geley. Translated by Stanley de Brath. Pp. xxviii+328. (London: W. Collins, Sons and Co., Ltd.) 17*s*. 6*d*. net.

Functional Mental Illnesses and the Interdependence of the Sympathetic and Central Nervous Systems in Relation to the Psychoneuroses. By Dr. R. G. Rows and Dr. D. Orr. Pp. 63. (Edinburgh and London: Oliver and Boyd.) 3*s*. 6*d*.

Ather und Relativitäts-Theorie. Rede gehalten am 5 Mai 1920 an der Reichs-Universitäts zu Leiden. By A. Einstein. Pp. 15. (Berlin: J. Springer.) 2.80 marks.

The Progress to Geography. By Dr. R. Wilson. Stage 1: Pictures and Conversations. Pp. 144. 2*s*. 6*d*. Stage 2: More Pictures and Conversations. Pp. 176. 3*s*. (London: Macmillan and Co., Ltd.)

Ministry of Health. Annual Report of the Chief Medical Officer, 1919–20. (Cmd. 978.) Pp. 393. (London: H.M. Stationery Office.) 3*s*. 6*d*. net.

Memoirs of the Geological Survey. Special Reports on the Mineral Resources of Great Britain. Vol. vii.: Mineral Oil, Kimmeridge Oil-Shale, Lignites, Jets, Cannel Coals, Natural Gas. By Sir A. Strahan. Second edition. Pp. iv+125. (London: E. Stanford, Ltd.; Southampton: Ordnance Survey Office.) 5*s*. net.

Productive Soils. The Fundamentals of Successful Soil Management and Profitable Crop Production. By W. W. Weir. Pp. xvi+398. (Philadelphia and London: J. B. Lippincott Co.) 10*s*. 6*d*. net.

An Introduction to the Structure and Reproduction of Plants. By Prof. F. E. Fritch and Dr. E. J. Salisbury. Pp. viii+458. (London: G. Bell and Sons, Ltd.) 15*s*. net.

British Plants: Their Biology and Ecology. By J. F. Beirs and H. J. Jeffery. Second edition. Pp. xii+346. (London: Methuen and Co., Ltd.) 7*s*. 6*d*.

Public Health Chemical Analysis. By R. C. Frederick and Dr. A. Forster. Pp. viii+305. (London: Constable and Co., Ltd.) 21*s*. net.

Hydraulics with Working Tables. By E. S. Bellasis. Third edition. Pp. viii+348. (London: Chapman and Hall, Ltd.) 18*s*. net.

Practical Physiological Chemistry. By S. W. Cole. Sixth edition. Pp. xvi+405. (Cambridge: W. Heffer and Sons, Ltd.; London: Simpkin, Marshall and Co., Ltd.) 16*s*.

Collected Papers on the Psychology of Phantasy. By Dr. C. E. Long. Pp. xii+216. (London: Baillière, Tindall and Cox.) 10*s*. 6*d*. net.

The Origin of Man and of his Superstitions. By C. Read. Pp. xii+350. (Cambridge: at the University Press.) 18*s*. net.

Maryland Geological Survey. Cambrian and Ordovician. Pp. 424+lviii plates. (Baltimore: Johns Hopkins Press.)

Report on the Danish Oceanographical Expeditions, 1908–1910, to the Mediterranean and Adjacent Seas. By Dr. Johs. Schmidt. No. 6. Vol. ii.: Biology. Pp. 140+110. (Copenhagen: A. F. Høst and Son.)

La Chimie et la Guerre. Science et Avenir. By Prof. C. Moureu. Pp. iii+384. (Paris: Masson et Cie.) 10 francs.

Diary of Societies.

THURSDAY, DECEMBER 2.

ROYAL AERONAUTICAL SOCIETY (at Royal Society of Arts), at 5.—Major G. H. Scott: Airship Piloting.—Flight-Lieutenant F. L. C. Butcher: Airship Mooring.

CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—Dr. W. Brown: The Value of Suggestion in Education.

CHEMICAL SOCIETY, at 8.—Sir Prafulla C. Rây: Varying Valency of Platinum with Respect to Mercaptanic Radicles.—H. E. Cox: The Influence of the Solvent on the Velocity of certain Reactions. Part II. Temperature Coefficients. A Test of the Radiation Hypothesis.—K. J. P. Orton and P. V. McKie: Preparation of Chloropicrin from Picric Acid and Trinitrotoluenes.

ROYAL SOCIETY OF MEDICINE (Obstetrics and Gynæcology Section), at 8.—C. White: Sodium Bicarbonate Tolerance in the Toxæmias

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of Pregnancy.—Major C. A. F. Hingston: The Necessity for the Reduction of Blood Pressure in Eclampsia.—Dr. R. W. Johnstone and Dr. J. Young: Case of Accidental Hæmorrhage associated with Eclampsia.—Dr. J. Young and Dr. D. Miller: Further Observations on the Etiology of Eclampsia and the Pre-eclamptic State.

FRIDAY, December 3.

Royal Society of Medicine (Laryngology Section), at 4.45.

Royal Astronomical Society (Geophysical Discussion), at 5.—The Cause of Magnetic Storms.—In Chair: J. H. Jeans. Opener: Prof. F. A. Lindemann.—Other Speakers: Prof. S. Chapman, Dr. C. Chree, Rev. A. L. Cortie, Major G. M. Dobson, E. W. Maunder, C. S. Wright, and Others.

Institution of Mechanical Engineers, at 6.—Further Discussion on The Human Factor in Industry, by A. Ramsay.

Institution of Electrical Engineers (Students' Section) (at King's College), at 6.30.—A. Serner and Others: Discussion on The Modern Tendency to Trusts. Is it Beneficial?

Junior Institution of Engineers (at Caxton Hall), at 8.—G. F. Shotter: Electrolysis as applied to the Measurement of Water.

Royal Society of Medicine (Anæsthetics Section), at 8.30.—Informal Meeting.

SATURDAY, December 4.

Gilbert White Fellowship (at 6 Queen Square, W.C.1), at 3.—H. J. Elwes: The Primitive Races of Sheep in Great Britain.

MONDAY, December 6.

Victoria Institute, at 4.30.—Dr. D. Anderson-Berry: The Psychology of Man, Experimentally Considered.

Royal College of Surgeons of England, at 5.—Sir Berkeley Moynihan: The Surgery of the Diseases of the Spleen (Bradshaw Lecture).

Royal Institution of Great Britain, at 5.

Society of Engineers (Inc.) (at Geological Society), at 5.30.—H. Banks: Blackpool Sea Coast Defence Works.

Aristotelian Society (at University of London Club, 21 Gower Street), at 8.—Prof. W. P. Montague: Variation, Heredity, and Consciousness.

Society of Chemical Industry (London Section) (at Chemical Society), at 8.—Dr. H. Levinstein: The Dyestuff Industry.

Royal Geographical Society (at Æolian Hall), at 8.30.—Major-Gen. L. C. Dunsterville: From Baghdad to the Caspian in 1918.

Medical Society of London (at 11 Chandos Street, W.1), at 8.30.—The Surgical Treatment of Malignant Disease of the Colon, introduced by Sir Berkeley Moynihan, to be followed by Sir W. Arbuthnot Lane, Bt., G. Wright, L. Mummery, G. G. Turner, and H. W. Carson.

TUESDAY, December 7.

Royal Society of Arts, at 4.30.—A. H. Ashbolt: The Trade of Australia During and After the War.

Institute of Industrial Administration (at Central Hall, Westminster), at 7.—R. Twelvetrees: Road Transport as an Aid to Industrial Management.

Royal Society of Medicine (Surgery: Sub-section of Orthopædics), at 5.30.

Royal Photographic Society of Great Britain, at 7.—F. Martin-Duncan: Photomicrography from the Ordinary Photographer's Point of View: Exhibition of Various Forms of Photomicrographic Apparatus and Demonstration of Use.

Royal Anthropological Institute, at 8.15.—L. S. Palmer: Some Late Keltic Remains from a Mendip Cave.

Sociological Society (at 65 Belgrave Road), at 8.15.—Major Douglas: The Mechanism of Consumer-Control.

Royal Society of Medicine (Pathology Section) (at Laboratories of Medical Research Council, Mount Vernon, Hampstead), at 8.30.—Prof. L. Hill: The Measurement of the Capillary Blood Pressure.—Capt. S. R. Douglas: The Serological Races of the Cholera Vibrio.—Dr. W. Mair: Dohler's Bodies in Scarlet Fever and Pneumonia.—J. E. Barnard: The Use of Ultra-Violet Light in the Differentiation of Animal Tissues.—Dr. L. Colebrook: Actinomyces.—Major H. W. Acton: The Formation of the Gametocyte of Benign Tertian Malaria.—Dr. Lovatt Evans: A Method for the Determination of the Reaction of Blood.

WEDNESDAY, December 8.

Royal Society of Arts, at 4.30.—E. A. Brayley Hodgetts: A Retrospect of the Personal Influence of Britons in Russia.

Institution of Automobile Engineers (at Institution of Mechanical Engineers), at 8.

THURSDAY, December 9.

Royal Society, at 4.30.—*Probable Papers.*—Lord Rayleigh: Doubly Refracting Structure of Silica Glass.—Prof. J. W. Nicholson and Prof. T. R. Merton: The Effect of Asymmetry on Wave-Length Determinations.—Prof. T. R. Merton: The Effect of Concentration on the Spectra of Luminous Gases.—Prof. E. Wilson: The Measurement of Low Magnetic Susceptibility by an Instrument of New Type.—Prof. W. T. David: The Internal Energy of Inflammable Mixtures of Coal-Gas and Air after Explosion.—Prof. A. McAulay: Multenions and Differential Invariants.

Linnean Society, at 5.—Prof. R. Newstead: Uganda Biology (Lantern Lecture).

London Mathematical Society (at Royal Astronomical Society), at 5.—S. Beatty: The Algebraic Theory of Algebraic Functions of One Variable.—F. Debono: The Construction of Magic Squares.—Prof. A. S. Eddington: An Application of the Calculus of Tensors to the Theory of Finite Differences.—Prof. A. R. Forsyth: Developable Surfaces through Two Curves in Different Planes.—J. E. Jones: The Distribution of Energy in the Neighbourhood of a Vibrating Sphere.—L. J. Mordell: (1) The Reciprocity Formula for the Gauss's Sums in a Quadratic Field. (2) A New Class of Definite Integrals.—Prof. G. N. Watson: The Product of Two Hypergeometric Functions.—Prof. W. H. Young: (1) Integration over the Area of a Surface and Transformation of the Variables in a Multiple Integral. (2) A New Set of Conditions for a Formula for an Area.

Royal Society of Medicine (Balneology and Climatology Section), at 5.15.—Dr. Max Porges: Mud Baths and Nephritis.—Dr. F. Hernaman-Johnson: The Importance of Combined Methods in Diagnosis and Treatment.—Dr. S. Burridge: Some Possible Ill-effects of Barium Waters.

Institution of Electrical Engineers (at Institution of Civil Engineers), at 6.—Adjourned Discussion on Papers by W. B. Woodhouse and R. O. Kapp on The Distribution of Electricity and Some Economic Aspects of E.H.T. Distribution by Underground Cables.

Royal Society of Medicine (Neurology Section), at 8.30.—Dr. F. Buzzard: Tabes, its Early Recognition and Treatment.

FRIDAY, December 10.

Association of Economic Biologists (in the Botanical Theatre, Imperial College of Science), at 2.30.—Exhibition of Specimens and Short Communications.—W. J. Dowson: Problems of Economic Biology in British East Africa.—Dr. M. C. Rayner: Nitrogen Fixation in the Ericaceæ.

Royal Astronomical Society, at 5.

Physical Society of London, at 5.—J. St. V. Pletts: Some Slide Rule Improvements.—F. H. Newman: The Absorption of Gases in the Electric Discharge Tube.—F. H. Newman: A Sodium Vapour Electric Discharge Tube (with Demonstration).—N. A. Allen: The Current-Density in the Crater of the Carbon Arc.

Royal Society of Medicine (Clinical Section), at 5.30.

Institution of Mechanical Engineers (Informal Meeting), at 7.

Technical Inspection Association (at Royal Society of Arts), at 7.30.—Dr. G. H. Gulliver: Some Features of Tensile Fractures.

Royal Society of Medicine (Ophthalmology Section), at 8.30.

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